Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 65 of 2019

Case of Maharashtra State Electricity Distribution Co. Ltd. seeking amendment / modification in Fuel Adjustment Cost Regulations of MERC (Multi Year Tariff) Regulations, 2015.

Coram

Anand B. Kulkarni, Chairperson
I.M. Bohari, Member
Mukesh Khullar, Member

Maharashtra State Electricity Distribution Co. Ltd. ....Petitioner

Appearance

For Petitioner : Shri. Ashish Singh, Advocate

ORDER

Date: 22 April, 2019

Maharashtra State Electricity Distribution Co. Ltd. **(MSEDCL)** has filed this Case on 13 March, 2019 seeking amendment / modification in Fuel Adjustment Cost **(FAC)** Regulations of MERC (Multi Year Tariff) Regulations, 2015 **(MYT Regulations, 2015)**.

2. **MSEDCL's main prayers are as follows:**

   a. *To admit the present petition as per the provisions of Regulations 100, 101 and 102 of MERC (MYT) Regulations 2015;*

   b. *To allow the petitioner to recover the FAC calculated for the month 'n-2' from the consumers for consumption in 'n-2'th month to be billed in the month 'n';*

c. *To allow it to include any variation in the PGCIL transmission Charges under the FAC calculation and to be levied to the consumers;*

d. *To remove deduction being made in FAC of nth month on account of exceed of Distribution Loss level as compared to approved level.*

3. **MSEDCL states that:**

3.1 MSEDCL has filed this Petition seeking amendment / modification in provisions of FAC in MYT Regulations, 2015 citing Regulation 100, 101 and 102 of the MYT Regulations, 2015. In its Petition, MSEDCL has raised four issues as given below:

a) To permit it to levy FAC to consumers for the period of actual consumption,
b) Inclusion of transmission charges while determining the monthly FAC,
c) Impact of disallowance of monthly distribution losses above the target loss levels while computing the monthly FAC,
d) Fixed FAC for better projections

3.2 **Allow it to levy FAC to consumers for the period of actual consumption:**

a) As per MYT 2015 Regulations, the Fuel Adjustment Charge (FAC) is allowed to be levied on a monthly basis as an adjustment in tariff against variation in cost of fuel and power purchase and shall be applicable on the entire sales. The Regulations regarding computation and levy of FAC are prescribed under regulation 10 of the MYT Regulations, 2015. Clause 10.8 of the Regulations clearly states that it needs to be recovered from actual Sales. However, this clause of the Regulation is silent about the month referred as to which month for the actual sales to be considered for FAC to be levied.

b) As per clause 10.7 of MYT Regulations, 2015, it clearly states that FAC needs to be charged in Month "n" for the variation of Fuel and Power Purchase Cost occurred in "n-2" month. This clause can be explained in a way that any Fuel and Power Purchase Cost variation for the month say October ("n-2" month) will be billed to consumers in the month of January ("n" month).

c) Presently MSEDCL calculates FAC in the 'n'th month for the variation in power purchase of month 'n-2' and levies and recovers from consumers on the consumption of 'n'th month. It has been observed that computation of FAC in the 'n' month for the month 'n-2' based on the energy sales of month 'n-2' affects MSEDCL by way of total recovery which depends on the sales for the respective month in which FAC is levied and its consumers due to change in mix of consumers and energy consumption in the nth month as compared to 'n-2'th month.

d) In a report submitted by Committee formed by MSEB Holding Company Ltd. in relation to FAC has supported the modification. MSEDCL proposes to levy FAC on the actual sales of the consumers corresponding to the FAC calculated for the respective month due to variation in fuel and power purchase cost i.e. say FAC of October month to be charged on the consumption of consumers of October month though billed in January.

e) It has been observed that computation of FAC in the 'n' month for the month 'n-2' based on the energy sales of month 'n-2' affects MSEDCL by way of total recovery which depends on the sales for the respective month in which FAC is levied and its consumers due to change in mix of consumers and energy consumption in the n^{th} month as compared to 'n-2'th month.

f) MSEDCL in past had requested the Commission to allow MSEDCL to amend the present mechanism of calculation and levy of FAC by charging it to consumers of the month for which FAC is levied with following suggestions vide letter dated 4 July, 2016 which was rejected by the Commission vide latter dated 26 August, 2016. Further, the Commission in its Order dated 3rd November 2016 in Case No. 48 of 2016 has not allowed the change in the current methodology citing the principles of ongoing business where the consumers are added and going out of the system and hence FAC is recovered only from consumers who are receiving supply at the time of such recovery, and is not recovered on a one-to-one basis from the same consumers as were receiving supply at the time the costs were incurred.

g) The Commission in its Order dated 3rd November 2016 in Case No. 48 of 2016 has also not allowed such change in methodology and stated as follows:

> *Regarding changing the current methodology and allowing billing of FAC determined for the "n^{th}" month on the consumption of the "n-2th" month, electricity supply being an ongoing business, consumers regularly get both added and exited from the system. Under the principles of ongoing business in the electricity sector, the impact of truing-up and associated carrying costs as well as FAC is recovered only from consumers who are receiving supply at the time of such recovery, and is not recovered on a one-to-one basis from the same consumers as were receiving supply at the time the costs were incurred. Therefore, such change in the methodology for billing FAC is not tenable.*

h) MSEDCL states that MYT/ MTR order takes place in five or two years. On the other hand FAC is being charged on monthly basis. Hence, the concept of applying trued up cost to contemporary consumers cannot be applied to FAC mechanism which is billed on monthly basis.

i) Burden of FAC for the month 'n-2' of those HT consumers who cease to be 'HT

Industrial' category in the month 'n' due to shifting towards Open Access, is being passed on to the other remaining HT Industrial consumers through increased FAC rate which results into defeating the Principle of Equality.

j) The inequalities increase as follows:

i. Levying FAC to the consumers who might have consumed low electricity in n-2 month (esp. seasonal consumers or consumers who bank energy), OR
ii. Penalizing the consumers of Distribution Licensee with the power consumption by the Open Access consumers who were the consumers of Distribution Licensee in n-2 month. Impact of the same can be seen more prominently in case of HT Industrial consumers where there is increasing trend of consumers shifting towards "open access".

k) Due to such shifting of consumers in Open Access, the following impact can be envisaged:

i. the effective FAC rate levied on remaining consumers is increasing;
ii. Sometimes it may reach to its maximum cap limit thereby giving rise to under recovery of FAC.

l) In case sales in the month of billing is lower than the sales of n-2 month due to seasonal variation or open access or consumption mix, it is possible that FAC for the month exceeds the ceiling of that category and therefore the differential amount cannot be billed in the same month resulting in carry forward to the next month which in turn increases the FAC of the succeeding month and also blocks the revenue of MSEDCL.

m) The Power Purchase quantum varies due to demand by the consumers and is seasonal in nature and also depends on the consumer mix. Therefore, it is necessary for levying FAC of the power purchase cost variation, on the actual consumption, which has resulted into such variance.

n) Due to increased energy rate on account of higher FAC, HT consumers may further tend to move to Open Access which makes it a vicious cycle resulting in further increasing FAC on remaining consumers.

o) HT Consumers are subsidizing consumers. Shifting of HT consumers to Open Access on account of increasing FAC may lower the revenue of MSEDCL which may further impact cross subsidy. It may result in to increase in tariff for subsidized consumers unreasonably.

p) MSEDCL has studied the trend of consumer shifting to Open Access and Permanently disconnected consumers from FY 2016-17 to FY 2018-19 H1 (Up to September 2018). From the detailed analysis, it can be observed that there is trend of shifting consumers to Open Access and permanently disconnected. In such a case, present mechanism is unable to address above cases in order to charge correct FAC to appropriate consumers. Even though impact of FAC is negligible in FY 2017-18 and FY 2018-19 due to lower FAC, the same is on a higher side in FY 2016-17 when FAC was positive and such condition may occur in future also.

q) Considering advent of latest development in information technology and computerized billing system, the required data regarding consumption of a particular consumer pertaining to the month 'n-2' can be captured for levy of FAC in the billing month 'n'.

r) Clause 5.3(h)-4 of the Tariff Policy states that, uncontrollable cost to be recovered speedily so as to ensure that future consumers are not burdened with past cost. Therefore, MSEDCL requests the Commission to amend/ modify clause 10 of MYT Regulations 2015 and allow distribution licensee to levy FAC for the actual consumption of "n-2" month though billed in "n" month.

s) This method has advantages for consumer and licensee due to following factors:

   a. there will be no under-recovery or over-recovery and also no carrying cost;
   b. the consumer who migrated under Open Access or gets permanently disconnected in 'n'th month will also require to settle FAC payable for past consumption before settlement of accounts;
   c. a new consumer who has not consumed electricity in the 'N-2'th month will not be required to pay the unjustified FAC in Nth month for the period when he was not a consumer.

3.3 **Inclusion of transmission charges while determining the monthly FAC:**

a) At present, variation in transmission charges approved and payable on the actual power purchase is not allowed to be considered while computing the monthly FAC.

b) In Clause 9.1 of MERC MYT Regulations, 2015, uncontrollable factors are defined. Any variation in the fuel cost and power purchase cost from approved sources is considered to be uncontrollable factors. In addition to the same, Clause 10.2 allows Distribution Licensee to recover FAC on account of variation in cost of fuel and power purchase cost.

c) In MTR Order No. 195 of 2017 dated 12th September 2018, the Commission has approved power purchase cost for FY 2018-19 and FY 2019-20 which includes the Power Grid Corporation of India Ltd. (PGCIL) charges too. Therefore, considering clause 9 of MYT Regulations 2015 which allows variation in fuel and power purchase cost from approved source and comparing the same with the power purchase cost approved in MTR Order, MSEDCL feels that PGCIL charges are required to be considered for inclusion in FAC for any variation during the period.

d) Central Electricity Regulatory Commission (CERC) notifies the Point of Connection (POC) Charges on quarterly basis in separate orders and varies according to load, flow and direction of power injected and withdrawn by the beneficiaries. Such Order is purely calculated on the basis of power flow and demand and is beyond the control of MSEDCL and therefore can be considered as uncontrollable. The variation in POC charges determined by CERC in its various quarterly Orders in last 2 years is almost -19% to 14.20 %. has been highlighted below:

Figures in Rs/MW/Month

Quarterly Period	POC Rates	Reliability support charges	Total Charges	Quarterly variation
Apr 2016 to June 2016	320069	23671	3,43,740	
Jul 2016 to Sep 2016	345179	26062	3,71,241	8.00%
Oct 2016 to Dec 2016	327380	25321	3,52,701	-4.99%
Jan 2017 to Mar 2017	333036	26182	3,59,218	1.85%
Apr 2017 to June 2017	317357	27764	3,45,121	-3.92%
July 2017 to Sep 2017	366836	27284	3,94,120	14.20%
Oct 2017 to Dec 2017	293699	24271	3,17,970	-19.32%
Jan 2018 to March 2018	329532	25899	3,55,431	11.78%

e) Present FAC mechanism does not consider variation in POC charges while determining FAC. The variation in actual transmission cost vis a vis that approved by the Commission is being addressed during true up exercise alongwith the carrying cost on the variation of transmission cost which may impact the tariff. Consideration of variation in transmission cost under FAC mechanism may eliminate the carrying cost at the time of True up exercise.

f) Since the POC i.e. transmission charges is part of the power purchase cost, variation in the transmission charges is an ‘uncontrollable factor’ and therefore, MSEDCL submits that any variation in transmission charges should be considered as part of variation in the power purchase cost and hence should be allowed to be included while determining the monthly FAC along with the Z-factor Charge (ZFAC) component.

g) Clause 5.3(h)-4 of the Tariff Policy also allows recovery of uncontrollable cost so that future consumers are not burdened with past costs.

h) Variation in transmission charges is being allowed to be recovered under Fuel Adjustment Charge (FAC) / Power Purchase Cost Adjustment Charges (PPAC) / Fuel Price & Power Purchase Adjustment (FPPPA) and the likewise in Delhi, Gujarat, and

All Union Territories under JERC. Therefore, MSEDCL requests the Commission to consider the variation in transmission charges while calculating FAC. A list of States and the corresponding regulatory provisions / extracts from SERC Orders that allows recovery of variation in transmission charges has been tabulated below:

S. No.	State	Regulation / Tariff Order	Relevant Regulation / Order
1	Delhi	DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017	*"134. The Distribution Licensee shall be allowed to recover the incremental Power Procurement Cost on quarterly basis, over and above the Power Procurement Cost approved in the Tariff Order of the relevant year, incurred due to the following: (a) Variation in Price of Fuel from long term sources of Generation; (b) Variation in Fixed Cost on account of Regulatory Orders from long term sources of Generation; (c) Variation in Transmission Charges."*
2	Gujarat	GERC Tariff Order on Determination of Tariff of Torrent Power Limited – Distribution Surat for FY 2018-19	FPPPA is determined based on the below formula: ***"FPPPA = [(PPCA-PPCB)]/ [100-Loss in %]*** *Where,* ***PPCA** - is the average power purchase cost per unit of delivered energy (including transmission cost),….* *and transmission charges as approved by the Commission for transmission network….* ***PPCB** - is the approved average base power purchase cost per unit of delivered energy (including transmission cost) for all the generating stations considered by the Commission….. and transmission charges as approved by the Commission…."*
3	All Union Territories under JERC	JERC Tariff Order on Determination of retail tariff for the FY2018-19 of Chandigarh Electricity Department (CED)	Para 9.4.3.2 – New Formula for Fuel and Power Purchase Adjustment Mechanism *"The FPPCA formula shall contain the following three components:* ….. *2. Transmission cost adjustments which shall contain the following elements:* *• Variation on account of Central Transmission Charges including arrears / revisions.* *• Variation on account of State Transmission charges including arrears / revisions* ….."

i) Considering above, MSEDCL requests the Commission to allow to consider the variation in transmission charges while calculating FAC.

3.4 **Impact of disallowance of monthly Distribution losses above the target loss levels while computing the monthly FAC:**

a. Presently, in accordance with the proviso of the section 10.8 of MERC, MYT Regulations 2015, FAC calculation is being undertaken on monthly basis, the cumulative loss for that month is considered and in case of any excess distribution loss, the same is deducted from FAC recoverable. However, in case if in next month Distribution loss improves and it maintains cumulative loss below approved level, present mechanism of FAC doesn't allow any recovery which has been deducted in earlier month resulting in revenue loss to distribution licensee for that month.

b. The Distribution loss also varies on a monthly basis depending on agriculture consumption, seasonal variation, demand and availability of power, transformer loading, etc. which may result into higher and lower distribution loss in different month. However, the approved Distribution loss as provided by the Commission in MTR Order is determined on an annual basis.

Details of variance in distribution loss in last 2 years on a monthly basis

Financial Year	Distribution Loss (%)											
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
FY 2016-17	18.41	16.29	7.43	5.43	15.96	13.91	8.48	17.81	19.83	18.82	17.20	22.20
FY 2017-18	22.43	20.86	6.61	13.68	17.53	8.93	6.90	16.18	17.67	15.62	10.46	19.68

c. Also, as per clause 9.2 (c) of MYT Regulations 2015, Variation in technical and commercial losses is considered as a controllable factor and accordingly, the variation is required to share with consumers at the time of true-up as per Clause 11 of MYT Regulations 2015.

d. On one hand, any excess in the distribution loss as compared to approved loss is deducted from FAC on a monthly basis and on the other hand, at the time of true up exercise actual distribution loss at cumulative level is being considered and again gain/ loss on account of Distribution loss is being shared between Licensee and consumers. This result into lower revenue realized by Distribution Licensee which directly affects the increase in gap and carrying cost. Therefore, MSEDCL proposed that calculation of distribution loss impact may be considered in the True Up only and may not be considered in the FAC.

3.5 **Fixed FAC for better projections:**

a. Present FAC mechanism is creating uncertainty and large variations in FAC charged which varies from positive to negative range. Same is shown in the following table:

Details of Average FAC Rate per unit for last 2.5 years

Month	FAC Rate Rs./KWh	Month	FAC Rate Rs./KWh	Month	FAC Rate Rs./KWh
Apr-16	0.46	Apr-17	-0.430	Apr-18	0.004
May-16	0.35	May-17	-0.030	May-18	0.100
Jun-16	0.09	Jun-17	-0.340	Jun-18	0.320
Jul-16	0.15	Jul-17	-0.440	Jul-18	0.600
Aug-16	0.37	Aug-17	-0.230	Aug-18	0.230
Sep-16	0.03	Sep-17	-0.150		
Oct-16	0.11	Oct-17	0.070		
Nov-16	-0.24	Nov-17	0.070		
Dec-16	-0.15	Dec-17	-0.270		
Jan-17	-0.49	Jan-18	0.004		
Feb-17	0.41	Feb-18	0.140		
Mar-17	0.23	Mar-18	0.260		

b. Due to such variation in FAC, certain industries are getting affected adversely as their main cost component is power and therefore proper planning of utilization of power and its cost impact is necessary to determine the value of the product. Therefore, it is necessary to have a mechanism to predict FAC with certainty.

c. On analysis of the trend of FAC during last 2½ year, it is that the average rate of FAC varied from 34 paise to 75 paise and -49 paise to 46 paise per unit during the FY 2015-16 and 2016-17 respectively. The same ranges around (-)44 paise to 26 paise per unit for FY 2017-18, whereas, in FY 2018-19 for the period Apr 18 to September 18, the range of FAC is around 0.4 paise to 60 paise.

d. Accordingly, for better planning by consumers as well as to ensure that there is no sudden hike in tariff due to FAC, it is necessary to have a fixed FAC with a rate which shall be based on average of FAC in the past 5 years or considering the base power purchase cost of a specific period and difference to be considered in additional FAC as the model adopted in Gujarat. MSEDCL proposes to have a fixed Fuel price and power purchase adjustment (FPPPA) for a year considering the power purchase cost of any financial year.

e. Gujarat Electricity Regulatory Commission (GERC) in Case No. 252/2003 dated 25th June 2004, Fuel and Power Purchase Price Adjustment (FPPPA) formula was approved whereby the base year was considered as FY 2003-04 on the basis of which the fixed FPPPA charges were approved. The Base period has been changed based on change in the power purchase costs and GERC in its Tariff Order issued on 31st March 2017 has revised the base period to FY 2015-16 on the basis of which has approved the fixed FPPPA of 143 paise per unit.

f. Based on the above principle, MSEDCL propose to have a fixed FPPPA for a year considering the power purchase cost of any financial year.

4. **Hearing:**

At the time of hearing held on 9 April, 2019 MSEDCL reiterated its submission as stated in the Case.

Commission analysis and ruling:

5. MSEDCL through this Petition is seeking amendments in the provisions of FAC in MERC (MYT) Regulations 2015.
6. Under Section 181 (3) of the EA, 2003, all Regulations of the Commission are subject to process of 'previous publication'. The MERC (MYT) Regulations 2015 were notified accordingly on 8 December, 2015, after an extensive process which included public consultation. The MYT Regulations, 2015 are applicable for the control period 1 April, 2016 to March, 2020. This is last year of the control period envisaged in the control period.
7. The Commission is in the process of framing new MYT Regulations for the next control period, which will also be subjected to public consultations. MSEDCL will have opportunity to participate in the public/ stakeholders consultation process and make its suggestion on the Draft MYT Regulations for the fourth control period.
8. The amendments in the Regulations cannot be carried out through an Order. Out of four issues on which MSEDCL has suggested changes in provisions relating to FAC in MYT Regulations, the Commission notes that issue of levy of FAC to consumers for the period in which that FAC has resulted has been already addressed by the Commission in its Order dated 3rd November 2016 in Case No. 48 of 2016 as under:

    2.14 Fuel Adjustment Charge……..

    ………………….

    Commission's Ruling

    The existing FAC formula in the Regulations has been specified after due consultation, and is intended to pass on changes in fuel-related costs from time to time during the year, as envisaged in the EA, 2003, in addition to the base tariff set for the year so as to take into account cost variations which have to be met by Licensees and Generators. Not providing for FAC, or lowering the ceiling, would not only affect Licensees and Generators adversely, but also result in consumers having to pay higher carrying cost for the period till the tariff is next revised. The Commission approves the FAC submitted by MSEDCL post facto after detailed

scrutiny, and the subsequent tariff determination and truing-up processes take into account the facts emerging at that time…………….
………………….

Regarding changing the current methodology and allowing billing of FAC determined for the "n^{th}" month on the consumption of the "$n\text{-}2^{th}$" month, electricity supply being an ongoing business, consumers are regularly both added and exit from the system. Under the principles of ongoing business in the electricity sector, the impact of truing-up and associated carrying costs as well as FAC is recovered only from consumers who are receiving supply at the time of such recovery, and is not recovered on a one-to-one basis from the same consumers as were receiving supply at the time the costs were incurred. Therefore, such change in the methodology for billing FAC is not tenable."

9. Accordingly, the Commission opines that the existing methodology needs to be continued as per the provisions of the existing MYT Regulations, 2015 till the end of the current control period.
10. As far as other issues raised by MSEDCL regarding FAC mechanism is concerned, the Commission is of the opinion that MSEDCL may raise these issues during public consultation process on draft MYT Regulations for fourth control period.
11. Hence, the following Order:

<u>ORDER</u>

The Case No. 65 of 2019 is dismissed.

Sd/ (Mukesh Khullar) Member	Sd/ (I. M. Bohari) Member	Sd/ (Anand B. Kulkarni) Chairperson

(Abhijit Deshpande)
Secretary